Index of Claims

Application/Control No.

Applicant(s)/Patent under Reexamination

10/817,017

COLLINS, HENRY L.

Examiner

Art Unit

Bryon P. Gehman

3728

Rejected Allowed

(Through numeral) Cancelled Restricted

Non-Elected Interference

Appeal Α 0 Objected

| Cle      | Date     |  |   |                               |              |  |                |              | 1 1      | Claim  |   |             |          |          | _              |          |   |    |
|----------|----------|--|---|-------------------------------|--------------|--|----------------|--------------|----------|--|---|-------------|----------|----------|----------------|----------|---|----|
| Claim    |          | -  | Ι   |                               | <br>         | Jar  | <del>e</del>   |              |          |  |   | Cla         | 11171    |          | 1              |          | 닉 | Da |
| Final    | Original | 11/21/05   | 5/16/06   |                               |              |  |                |              |          |  |   | Final       | Originat |          |                |          |   |    |
| 1        | 1        | V  | Ξ   |                               |              |  |                |              |          |  |   |             | 51       |          |                |          |   | Ĺ  |
| 2        | 2        |  | ı   |                               |              |  |                |              |          |  |   |             | 52       |          |                |          |   | L  |
| 3        | 3        | Ц  | Ц   |                               |              |  |                | L            | L_       | $ldsymbol{ld}}}}}}$ |   |             | 53       |          |                |          |   | L  |
| 4        | 4        | Ш  | Ц   |                               |              | L  |                |              |          |  | Į |             | 54       |          |                | _        |   | L  |
| 5        | 5        | Ш  | Ш   |                               |              |  |                | _            | _        |  |   |             | 55       |          | _              | _        |   | L  |
| <u>6</u> | 6        | Щ  | Ш   | _                             | _            | 1_   | <u> </u>       |              | L_       |  |   |             | 56       |          |                |          |   | L  |
|          | 7        | Ц  | Ц   | <u> </u>                      |              | <u> </u>   | _              | <u> </u>     | <u> </u> | Ь.   |   |             | 57       | _        | _              |          |   | L  |
| 8        | 8        | Н  | 1   | -                             |              | <u> </u>   |                | <u> </u>     |          | <u> </u>   |   |             | 58       |          | $\dashv$       |          |   | L  |
| 9        | 9        | Н  | H   | $\vdash$                      | <u> </u>     |  | <del> </del> — |              | -        | <u> </u>   |   |             | 59       |          |                | _        |   | ┝  |
| 10       | 10       | ₽  | Н   | ⊢                             | -            | -  | ⊢              |              | ┡        |  |   |             | 60<br>61 | -        | Н              | $\dashv$ |   | H  |
| 11       | 11       | H  | H   | -                             | -            | ⊢  | -              |              | -        |  | ł |             | 62       |          | Н              | $\dashv$ |   | H  |
| 13       | 13       | H  | H   | H                             | <del> </del> | -  | -              |              | ├        | $\vdash$   |   |             | 63       |          | Н              | $\dashv$ |   | H  |
| 14       | 14       | H  | Н   | $\vdash$                      | -            | ┢  | $\vdash$       | -            | -        | -  |   |             | 64       | $\vdash$ |                | $\neg$   |   | H  |
| 15       | 15       | H  | <del>                                      </del> | $\vdash$                      | $\vdash$     | ├-   | -              | -            |          | ┢  |   |             | 65       |          |                | $\dashv$ |   | H  |
| 16       | 16       | V  | =   | H                             | -            | 1  | $\vdash$       | -            | $\vdash$ | $\vdash$   |   |             | 66       |          |                | $\dashv$ | _ | r  |
|          | 17       | Ť  | <del>  -</del>                                    |                               | -            | <del>                                     </del> | $\vdash$       | $\vdash$     | -        | <del> </del>   |   |             | 67       | -        |                | _        |   | r  |
|          | 18       | ┢  | T   |                               | $\vdash$     | -  | ┢              | Т            |          | 1  |   |             | 68       |          |                | $\neg$   |   | Γ  |
|          | 19       | <del>                                     </del> | <del>                                     </del>  |                               | H            | H  | ┢              | Т            | $\vdash$ | ┪  | 1 |             | 69       |          |                |          |   | Γ  |
|          | 20       | ┢  | <del>                                     </del>  | -                             |              | t  |                | _            |          | Т  | 1 |             | 70       |          |                |          |   | Γ  |
|          | 21       | T  | $\vdash$  | $\vdash$                      |              | T  | T              | _            | $\vdash$ |  | 1 |             | 71       |          | $\Box$         |          |   | Γ  |
|          | 22       | $\vdash$   | $\vdash$  |                               |              |  |                |              | Τ        |  | 1 |             | 72       |          |                |          |   | Г  |
|          | 23       |  |   |                               |              |  |                |              |          |  | ] |             | 73       |          |                |          |   |    |
|          | 24       |  |   |                               |              |  |                |              |          |  | ] |             | 74       |          |                |          |   |    |
|          | 25       |  |   |                               |              |  |                |              |          |  |   |             | 75       |          |                |          |   | L  |
|          | 26       |  |   |                               |              | <u> </u>   |                |              | <u> </u> |  |   | L           | 76       |          |                |          |   | L  |
| <u> </u> | 27       | <u> </u>   | _   |                               | 乚            |  | 上              | <u> </u>     |          |  |   |             | 77       |          |                |          |   | L  |
| <u> </u> | 28       | _  |   | <u> </u>                      | <u> </u>     | <u> </u>   | <u> </u>       | <u> </u>     |          | <u> </u>   | Į |             | 78       | ļ        | $\Box$         |          |   | Ļ  |
| <u></u>  | 29       | <u> </u>   | ļ   | <u> </u>                      | ļ            | ┡  | 1              | _            |          | <u> </u>   | 1 |             | 79       | <u> </u> |                | _        | _ | Ļ  |
|          | 30       | _  | _   | <u> </u>                      | ļ            | <del> </del> _                                   | ₩              | <u> </u>     |          | <u> </u>   | ļ |             | 80       |          |                |          |   | L  |
|          | 31       | <u> </u>   | -   | ├                             | -            | ļ  | ₩              | $\vdash$     | -        | -  | ┨ | ļ — —       | 81       | <u> </u> |                |          |   | ┞  |
| -        | 32       | <u> </u>   | -   | ├-                            | ⊢            | ┞-   | ļ              | ╄            | -        | -  | ┨ |             | 82       | ⊢        | $\vdash$       | $\vdash$ | _ | ┝  |
|          | 33       | ├  | ├-  | ┡                             | ┝            | ├-   | ┼              | ┼            | ├        | -  | ┨ |             | 83<br>84 | _        | H              |          | _ | ┝  |
|          | 34<br>35 | ├  | ⊢   | ⊢                             | ┢            |  | ┼─             | ├            | ┢        | ┢  | 1 |             | 85       | ⊢        | $\vdash$       |          | _ | ⊦  |
| -        |          | -  | ⊢   | ├                             | ╁            | ╁╌   | ╫╌             | ⊢            | ┝        | -  | 1 |             | 86       |          |                | $\vdash$ |   | ╁  |
| -        | 36<br>37 | -  |   | $\vdash$                      | +            | +-   | $\vdash$       | $\vdash$     | $\vdash$ | +-   | 1 |             | 87       | $\vdash$ | <del>  -</del> | -        |   | H  |
| -        | 38       | $\vdash$   | $\vdash$  | +-                            | $\vdash$     | $\vdash$   | 1              | $\vdash$     | +-       | $\vdash$   | 1 | $\vdash$    | 88       | $\vdash$ | $\vdash$       |          | _ | t  |
|          | 39       | <del> </del>                                     | 1   | +                             | 1            | 1  | ╁              | $\vdash$     | $\vdash$ | +-   | 1 | <del></del> | 89       | ╁┈       |                | Н        |   | t  |
|          | 40       |  | t   |                               | $\vdash$     | T  | T              | T            | T        | 1  | 1 |             | 90       |          | T              |          | Т | T  |
|          | 41       | T  | T   | T                             | T            | Г  | T              | 1            | t        | T  | 1 |             | 91       | İ        |                |          |   | T  |
|          | 42       | t  | T   | T                             | T            | T  | 1              | f            |          | Π  | 1 |             | 92       | Γ        | Γ              |          |   | Γ  |
|          | 43       |  |   |                               |              |  |                |              |          |  | ] |             | 93       |          |                |          |   | Γ  |
|          | 44       |  | Γ   |                               |              |  |                |              |          |  |   |             | 94       |          |                |          |   |    |
|          | 45       |  |   |                               |              |  |                |              |          |  | ] |             | 95       |          |                |          | L | Ĺ  |
|          | 46       |  |   |                               |              |  |                | $oxed{\Box}$ | L        |  | 1 |             | 96       | <u> </u> |                | _        | _ | L  |
|          | 47       | _  | L   | L                             |              | _  |                | _            | L        | <u> </u>   | 1 |             | 97       |          | <u> </u>       | <u> </u> | L | L  |
| <u> </u> | 48       | _  | 丄   | 1_                            | 1_           | ↓_   | 1              | ↓            | ┖        | ↓_   | 1 | ļ           | 98       | $\vdash$ | L_             | <u> </u> | L | L  |
| <u> </u> | 49       | <u> </u>   | 1_  | $oldsymbol{oldsymbol{\perp}}$ | ↓_           | ↓_   | ↓_             | ↓_           | 1        | 4_   | 1 | <u></u>     | 99       | <u> </u> | _              | <u> </u> | L | Ļ  |
| 1        | 50       |  | L   |                               | 丄            |  |                | <u> </u>     | L        |  | J |             | 100      |          | L.             |          | L | L  |

| Cla      | Claim          |  | Date         |                  |              |          |          |          |             |  |  |  |
|----------|----------------|--|--------------|------------------|--------------|----------|----------|----------|-------------|--|--|--|
|          |                |  |              |                  |              |          | $\neg$   |          |             |  |  |  |
| =        | Originat       |  |              |                  |              |          | ļ        |          |             |  |  |  |
| Final    | : <u>5</u>     |  |              |                  |              |          | ı        |          |             |  |  |  |
| "        | ြင်း ၂         |  |              |                  |              |          |          |          | -           |  |  |  |
|          |                |  |              |                  |              |          | _        |          |             |  |  |  |
| 1        | 51             |  |              |                  |              |          |          |          |             |  |  |  |
|          | 52             |  |              |                  |              |          |          |          |             |  |  |  |
|          | 53             | $\neg$   |              |                  |              |          |          |          |             |  |  |  |
|          | 54             | $\neg$   |              |                  |              |          | $\neg$   | $\neg$   | $\neg$      |  |  |  |
| <b>—</b> | 55             | $\dashv$   |              |                  | _            | $\neg$   |          | $\dashv$ | $\dashv$    |  |  |  |
| -        | 56             |  | -            |                  |              | $\vdash$ |          |          | -           |  |  |  |
| -        |                | _  |              |                  |              | Н        | _        | _        |             |  |  |  |
| $\perp$  | 57             | _  |              |                  |              |          | _        | _        | _           | _  |  |  |
|          | 58             |  |              | _                |              |          | _        |          |             |  |  |  |
|          | 59             |  |              |                  |              |          |          |          |             |  |  |  |
|          | 60             |  |              |                  |              |          |          |          |             |  |  |  |
|          | 61             |  |              |                  |              |          |          |          |             |  |  |  |
|          | 62             |  |              |                  |              |          |          |          |             |  |  |  |
|          | 63             |  |              |                  |              | П        |          |          |             |  |  |  |
|          | 64             | $\dashv$   |              | М                | Н            | H        |          |          |             |  |  |  |
| $\vdash$ | 65             | -  |              |                  |              | Н        |          |          | -           |  |  |  |
| $\vdash$ | 66<br>66       | -1   |              | $\vdash$         | $\vdash$     | $\vdash$ | $\vdash$ |          |             | -  |  |  |
| -        | 67             |  |              |                  |              |          |          | _        | _           |  |  |  |
| $\vdash$ |                |  | -            |                  | _            | Ш        |          | _        |             |  |  |  |
|          | 68             |  |              |                  |              | Ш        | _        | _        | _           |  |  |  |
| <u> </u> | 69             |  |              | _                |              | Ш        | _        |          | _           |  |  |  |
| L        | 70             |  |              |                  |              | Ш        |          |          | _           |  |  |  |
|          | 71<br>72<br>73 |  | _            |                  | _            | Ш        |          |          |             |  |  |  |
|          | 72             |  |              |                  |              |          |          |          |             |  |  |  |
|          | 73             |  |              |                  |              |          |          |          |             |  |  |  |
|          | 74<br>75       |  |              |                  |              |          |          |          |             |  |  |  |
|          | 75             |  |              |                  |              |          |          |          |             |  |  |  |
|          | 76             |  |              |                  |              |          |          |          |             |  |  |  |
|          | 77             |  |              |                  |              |          |          |          |             |  |  |  |
|          | 78             |  |              |                  |              |          |          |          |             |  |  |  |
|          | 79             |  | _            |                  |              |          |          |          |             |  |  |  |
|          | 80             | П  | _            |                  | _            |          |          |          |             |  |  |  |
|          | 81             | Н  |              |                  | ┢            | H        |          |          |             |  |  |  |
|          | 92             | -  |              |                  | -            | -        | _        |          | _           |  |  |  |
|          | 82<br>83       | Н  |              | $\vdash$         | ├─           |          | -        | -        | _           |  |  |  |
|          | 03             | Н  |              | <u> </u>         | $\vdash$     | -        |          | -        | $\vdash$    |  |  |  |
|          | 84             | H  |              |                  | <del> </del> | -        |          |          | <u> </u>    | -  |  |  |
|          | 85             | $\vdash$   |              | $\vdash$         |              | -        | $\vdash$ | $\vdash$ |             |  |  |  |
| ļ        | 86             | -  |              | ļ                | _            |          |          | <u> </u> | <u> </u>    | <u> </u>   |  |  |
|          | 87             | $\vdash$   | _            | <u> </u>         | <u> </u>     | ļ        | _        | L        | L           | <u> </u>   |  |  |
|          | 88             | L.,  |              | _                | <u> </u>     | <u> </u> | <u> </u> | L_       | L           |  |  |  |
|          | 89             | Ш  |              | L.               | <u> </u>     | <u> </u> | <u> </u> | <u> </u> | <u> </u>    |  |  |  |
| <u> </u> | 90             | oxdot  |              | <u> </u>         | L            | Ļ        | <u> </u> | _        | _           |  |  |  |
|          | 91             | $oldsymbol{ol}}}}}}}}}}}}}}}}}}$ | L            | $oxed{oxed}$     | L_           | L        | _        | <u> </u> | L           | <u> </u>   |  |  |
|          | 92             |  |              | $\Box$           |              | Ĺ        | $\Box$   | Ĺ        |             |  |  |  |
|          | 93             |  |              | Ĺ                | L            | L        | L        | L        | L           | Ĺ  |  |  |
|          | 94             |  |              |                  |              |          |          |          |             |  |  |  |
|          | 95             | [  |              |                  |              | Γ        |          |          |             |  |  |  |
|          | 96             |  |              |                  |              |          |          |          | П           | Γ  |  |  |
|          | 97             | Ι  | Г            |                  | Г            |          |          | Г        |             | Г  |  |  |
| -        | 98             | <del>                                     </del>   | Н            | $\vdash$         | $t^-$        | T        | t        |          | $\vdash$    | Т  |  |  |
| -        | 99             | $\vdash$   | <u> </u>     | T                |              |          | $\vdash$ | 1        | $\vdash$    | <del>                                     </del> |  |  |
| <u> </u> | 1400           | -  | <del> </del> | <del>  -  </del> | ₩            | ┼        | ├        | +-       | <del></del> | -  |  |  |

| Claim  |                                 | Date   |          |          |              |              |              |          |              |                 |  |
|--|---------------------------------|--|----------|----------|--------------|--------------|--------------|----------|--------------|-----------------|--|
|  |                                 |  |          |          | ī            |              |              |          |              | $\dashv$        |  |
| ā  | Original                        |  | ı        |          |              |              |              |          |              |                 |  |
| Final  | rigi                            | - 1  |          |          |              |              |              |          |              | l               |  |
| -  | 0                               | - 1  |          |          |              |              |              |          |              |                 |  |
|  | 101                             |  |          |          |              |              |              |          | -            | ヿ               |  |
|  | 101<br>102                      | ╗  |          |          |              |              |              |          |              | ヿ               |  |
|  | 103                             | $\neg$   |          |          |              |              |              |          |              | $\neg$          |  |
|  | 104                             |  |          |          |              |              |              |          |              |                 |  |
|  | 104<br>105<br>106               | T  |          |          |              |              |              |          |              |                 |  |
|  | 106                             |  |          |          |              |              |              |          |              |                 |  |
|  | 107                             |  |          |          |              |              |              |          |              |                 |  |
|  | 107<br>108                      | T  |          |          |              |              |              |          |              |                 |  |
|  | 109<br>110                      |  |          |          |              |              |              |          |              |                 |  |
|  | 110                             |  |          |          |              |              |              |          |              |                 |  |
|  | 111                             |  |          |          |              |              |              |          |              |                 |  |
|  | 112                             | $\Box$   |          |          |              |              |              |          |              |                 |  |
|  | 113                             |  |          |          |              |              |              |          |              |                 |  |
|  | 114                             |  |          |          |              |              |              |          |              |                 |  |
|  | 115<br>116                      |  |          |          |              |              |              |          |              |                 |  |
|  | 116                             | $\Box$   |          |          |              |              |              |          |              |                 |  |
|  | 117                             | $\Box$   |          |          |              |              |              |          |              |                 |  |
|  | 118                             |  |          |          |              |              |              |          |              |                 |  |
|  | 119                             |  |          |          |              |              |              |          |              |                 |  |
|  | 120                             |  |          |          |              |              |              |          |              |                 |  |
|  | 119<br>120<br>121<br>122        |  |          |          |              |              |              |          |              |                 |  |
|  | 122                             |  |          |          |              |              |              |          |              |                 |  |
|  | 123                             |  |          |          |              |              |              |          |              |                 |  |
|  | 123<br>124<br>125               |  |          |          |              |              |              |          |              |                 |  |
|  | 125                             |  |          |          |              |              |              |          |              |                 |  |
|  | 126<br>127<br>128<br>129<br>130 |  |          | _        |              |              |              |          |              | Ш               |  |
|  | 127                             |  |          |          | _            |              |              |          |              | Ш               |  |
|  | 128                             | $\Box$   |          |          | _            | <u> </u>     | _            |          |              | Щ               |  |
|  | 129                             | $\Box$   |          |          | _            | _            |              | _        |              | Ш               |  |
|  | 130                             |  |          | <u> </u> | L            | <b>!</b>     | <u> </u>     | _        | <u> </u>     | Ш               |  |
|  | 131<br>132                      | Ш  |          | oxdot    | Ь.           | <u> </u>     | <u> </u>     | <u> </u> | ļ            | Ш               |  |
|  | 132                             | Ш  | _        | $\vdash$ |              | _            | _            | <u> </u> | <u> </u>     | Ы               |  |
|  | 133                             | Ш  | _        | <b>!</b> | <u> </u>     | <u> </u>     | _            |          | <u> </u>     | Щ               |  |
|  | 134                             |  | _        | ├        | <del> </del> | ₩            | <u> </u>     | _        |              | $\vdash$        |  |
|  | 135                             | _  | <u> </u> | <u> </u> | _            | ├-           |              | ┡        | _            | Щ               |  |
|  | 136                             | $\vdash$   | _        | -        | $\vdash$     |              | <del> </del> |          | ├            | Н               |  |
|  | 137<br>138                      | $\vdash$   | -        | ⊢        | -            | ⊢            | ├-           | $\vdash$ | $\vdash$     | $\vdash$        |  |
|  | 138                             | <del>                                     </del> | <u> </u> | -        | -            | $\vdash$     |              | $\vdash$ | ⊢            | $\vdash$        |  |
|  | 139<br>140                      | $\vdash$   | _        | $\vdash$ |              | -            | -            | $\vdash$ | 1-           | $\vdash\vdash$  |  |
| ļ. <u>.                                   </u> |                                 | $\vdash$   | ┝        | -        |              | ┼-           | -            | $\vdash$ | $\vdash$     | $\vdash \vdash$ |  |
| -  | 141                             |  | $\vdash$ | -        | -            | ╁            | -            | $\vdash$ | ├            | Н               |  |
|  | 142                             | -  | ├        |          | $\vdash$     | <del> </del> | <del> </del> | -        |              | $\vdash \vdash$ |  |
|  | 144                             | $\vdash$   | -        | -        | $\vdash$     | $\vdash$     | <del> </del> |          |              | Н               |  |
|  | 145                             |  | -        | ├-       | $\vdash$     | ⊢            | -            | $\vdash$ | ├            | $\vdash$        |  |
|  | 145                             | -  | -        | +-       | ┼            | ╁╌           | ╁            | -        | $\vdash$     | $\vdash \vdash$ |  |
|  | 147                             | -  | -        | $\vdash$ | -            | $\vdash$     | $\vdash$     | $\vdash$ | <del> </del> | H               |  |
| <u> </u>                                       | 148                             | ├  | ├        | $\vdash$ | ╀            | 1            | -            | $\vdash$ | $\vdash$     | H               |  |
|  | 149                             | -  | ┝        | ⊢        | +-           | $\vdash$     | ├            | $\vdash$ | +-           | Н               |  |
| ├  | 150                             | -  | -        | Ͱ        | ╁            | +            | $\vdash$     | ├        | -            | $\vdash \vdash$ |  |
| L  | 1120                            | Щ  | Ц_       |          | L_           | 1_           | L            | <u> </u> |              | Ш               |  |